ATTACHMENT A-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 201/68

Revise the Technical Specification as follows:

Remove Page	Insert Page
XXIII	XXIII
3/4 7-26	3/4 7-26
3/4 7-27	3/4 7/27
3/4 7-28	3/4 7-28
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B 3/4 7-6	B 3/4 7-6

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PLANT SYSTEMS

3/4.7.12 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.12 All snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on non safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems# required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.12.d on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.12 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Inspection Types

As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these ~~groups~~ categories (inaccessible and accessible) may be inspected independently according to the schedule ~~below. The first inservice visual inspection of each type of snubber shall be performed after 4 months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If all snubbers of each type are found OPERABLE during the first inservice visual inspection, the second inservice visual inspection of that type shall be performed at the first refueling outage. Otherwise, subsequent visual inspections of a given type shall be performed in accordance with the following schedule:~~

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These systems are defined as those portions or subsystems required to prevent releases in excess of 10 CFR 100 limits.

PROPOSED

4.7.12. (Continued)

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No. of Inoperable Snubbers of Each Type per Inspection Period	Subsequent Visual Inspection Period* **
0	18 months ± 25%
1	12 months ± 25%
~~2~~	~~6 months ± 25%~~
3, 4	124 days ± 25%
5, 6, 7	62 days ± 25%
8 or more	31 days ± 25%

Early inspections (i.e., those performed before 75% of the current inspection period has elapsed) may be used to ~~set~~ new reference surveillance dates for the current inspection period. However, the results of such early inspections cannot be used to increase the current inspection period (Period may only stay the same or decrease as determined by the table in 4.7.12.b).

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) ~~there are no~~ the snubber has NO visible indications of damage or impaired OPERABILITY (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections ~~may be determined OPERABLE~~ shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; or (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.12.e or 4.7.12.f, as applicable. INSERT "B"

DELETE

~~*~~ The inspection interval for each type of snubber shall not be lengthened more than one step at a time unless a generic problem has been identified and corrected; in that event the inspection interval may be lengthened one step the first time and two steps thereafter if no inoperable snubbers of that type are found.

** The provisions of Specification 4.0.2 are not applicable.

PROPOSED

SURVEILLANCE REQUIREMENTS (Continued)

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When a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable and shall not be determined OPERABLE via functional testing except in the following case. If the fluid port of a hydraulic snubber is found to be uncovered due to a leak in the hydraulic fluid supply line or fittings and the snubber passes the functional test criteria after being filled with fluid and vented of air, then the snubber may be determined OPERABLE for the purpose of establishing the next visual inspection interval provided that inspections are performed to verify adequate remote reservoir fluid supply only for all snubbers of the same type in six (6) months ± 25%. If after the first six (6) month inspection, the as-left reservoir level is determined to be an inadequate supply until the next refueling outage, perform an additional visual inspection of the remote reservoir fluid level only in six (6) months ± 25%.

Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.12.d (that failures are subject to an engineering evaluation of component structural integrity) has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

d. Functional Tests

At least once per 18 months during shutdown, a representative sample (of at least 10 snubbers or at least 10% whichever is less) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.12.e or 4.7.12.f an additional 10 snubbers or at least 10% whichever is less of that type of snubber shall be functionally tested.

For each large bore snubber (snubbers greater than 1500 kips) on the reactor coolant system that does not meet the functional test acceptance criteria of Specification 4.7.12.e, an engineering evaluation is required to determine the failure mode. If the failure is determined to be generic, an additional 10% (for each failure) of that type of snubber shall be functionally tested. If the failure is determined to be non-generic, an additional 10% (for each failure) of that type of snubber will be tested during the next functional test period.

PROPOSED

SURVEILLANCE REQUIREMENTS (Continued)

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle

2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.)

3. Snubbers within 10 feet of the discharge from a safety relief valve.

Snubbers that are especially difficult to remove or in high radiation zones during shutdown shall also be included in the representative sample.*

If a spare snubber has been installed in place of a failed snubber, the spare snubber shall be retested. Test results of this snubber may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

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* Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PROPOSED

SURVEILLANCE REQUIREMENTS (Continued)

e. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

g. Snubber Service Life Monitoring*

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and may be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.

* For purposes of establishing a baseline for the determination of service life monitoring, this program will be implemented over 3 successive refueling periods.

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TABLE 4.7-1
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a type of snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater that the number in Column A, the next inspection interval shall be the same as the previous interval.

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TABLE 4.7-1 (CONT'D)
SNUBBER VISUAL INSPECTION INTERVAL

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

3/4.7.12 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other similar event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to each safety-related system during an earthquake or other similar event initiating dynamic loads. Therefore, the required inspection interval varies ~~inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection. In order to establish the inspection frequency for each type of snubber on a safety-related system, it was assumed that the frequency of snubber failures and initiating events is constant with time and that the failure of any snubber on that system could cause the system to be unprotected and to result in failure during an assumed initiating event.~~ Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

DELETE AND INSERT "C"

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, or verified operable by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any-safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

PROPOSED

INSERT "A"

determined by Table 4.7-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment (*).

* NRC will include the number of the license amendment that implements this change.

INSERT "B"

All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

INSERT "C"

based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each type of snubber, and the previous inspection interval. This criteria follows the guidance provided in NRC Generic Letter 90-09.

ATTACHMENT A-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 201/68

Revise the Technical Specification as follows:

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VII	VII
3/4 7-24	3/4 7-24
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B 3/4 7-6	B 3/4 7-6

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LIMITING CONDITION FOR OPERATION AND SURVEILLANCE REQUIREMENTS

PROPOSED

PLANT SYSTEMS

3/4.7.12 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.12 All snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems* required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.12.d on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.12 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Visual Inspections

The first inservice visual inspection of snubbers shall be performed after four months but within 10 months of commencing POWER OPERATION and shall include all snubbers. If less than two (2) snubbers are found inoperable during the first inservice visual inspection, the second inservice visual inspection shall be performed 12 months ± 25% from the date of the first inspection. Otherwise, subsequent visual inspections shall be performed in accordance with the following schedule:

DELETE AND INSERT "A"

No. Inoperable Snubbers per Inspection Period	Subsequent Visual Inspection Period. ** #
0	18 months ± 25%
1	12 months ± 25%
2	6 months ± 25%
3, 4	124 days ± 25%
5, 6, 7	62 days ± 25%
8 or more	31 days ± 25%

*These systems are defined as those portions or subsystems required to prevent releases in excess of 10 CFR 100 limits.

DELETE ~~**The inspection interval shall not be lengthened more than one step at a time. #The provisions of Specification 4.0.2 are not applicable.~~

PROPOSED

SURVEILLANCE REQUIREMENTS (CONTINUED)

The snubbers may be categorized into two groups: those accessible and those inaccessible during reactor operation. Each group may be inspected independently in accordance with the above schedule.

b. Visual Inspection Criteria

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are secure, and (3) in those locations where snubber movement can be manually induced without disconnecting the snubber, that the snubber has freedom of movement and is not frozen up. Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; or (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.12.d. However, when a fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be determined inoperable and cannot be determined OPERABLE via functional testing for the purpose of establishing the next visual inspection interval.

DELETE

Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.12.d (that failures are subject to an engineering evaluation of component structural integrity) has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

d

d. Functional Tests

At least once per 18 months during shutdown, a representative sample (of at least 10%) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For Functional Testing type of snubber shall mean a group or combination of groups by load size and kind (i.e., hydraulic or mechanical) or any other combination of load size and kind. For each snubber that does not meet the functional test acceptance criteria of Specification ~~4.7.12.d~~, an additional 10% shall be functionally tested.

(4.7.12.e or 4.7.12.f,

PROPOSED

SURVEILLANCE REQUIREMENTS (Continued)

DELETE AND INSERT "B"

~~f. Snubber Functional Test Acceptance Criteria~~

~~The snubber functional test shall verify that:~~

~~1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.~~

~~2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension.~~

~~3. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.~~

g. Service Life Monitoring

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and may be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2. Service life will be defined to commence at plant startup subsequent to initial fuel load.

NPF-73

TABLE 4.7-1
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population or category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater that the number in Column A, the next inspection interval shall be the same as the previous interval.

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TABLE 4.7-1 (cont'd)
SNUBBER VISUAL INSPECTION INTERVAL

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

PLANT SYSTEMS

3/4.7.13 STANDBY SERVICE WATER SYSTEM (SWE)

LIMITING CONDITION FOR OPERATION

3.7.13.1 At least one standby service water subsystem shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With less than one SWE subsystem OPERABLE, restore at least one subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following thirty hours.

SURVEILLANCE REQUIREMENTS

4.7.13.1 At least one SWE subsystem shall be demonstrated OPERABLE:

a. At least once per 92 days, by verifying that each pump develops at least 109 psid differential pressure, while pumping through its test flow line.

b. At least once per 18 months during shutdown by starting a Standby Service Water System Pump, shutting down one Service Water System Pump, and verifying that the Standby Service Water Subsystem provides at least 8584 gpm cooling water to that portion of the Service Water System under test for at least 2 hours.

3/4.7 PLANT SYSTEMS

BASES

3/4.7.9 SEALED SOURCE CONTAMINATION

The limitations on sealed source removable contamination ensure that the total body or individual organ irradiation does not exceed allowable limits in the event of ingestion or inhalation of the source material. The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. Leakage of sources excluded from the requirements of this specification represent less than one maximum permissible body burden for total body irradiation if the source material is inhaled or ingested.

Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism

3/4.7.10 and 3/4.7.11 RESIDUAL HEAT REMOVAL SYSTEM (RHR)

Deleted

3/4.7.12 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other similar event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies ~~inversely with the observed snubber failures and is determined by the number of inoperable snubbers found during an inspection~~. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection.

DELETE AND INSERT "C"

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, or verified OPERABLE by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically, susceptible snubbers are those which are of a specific make or model and have the same

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BASES

SNUBBERS (Continued)

design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at refueling or 18 month intervals not to exceed two (2) years. Observed failures of these sample snubbers shall require functional testing of additional units.

INSERT "D" →

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber life review are not intended to affect plant operation.

3/4.7.13 STANDBY SERVICE WATER SYSTEM (SWE)

The OPERABILITY of the SWE ensures that sufficient cooling capacity is available to bring the reactor to a cold shutdown condition in the event that a barge explosion at the station's intake structure or any other extremely remote event would render all of the normal Service Water System supply pumps inoperable.

PROPOSED

INSERT "A"

a. Inspection Types

As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment (*).

* NRC will include the number of the license amendment that implements this change.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for the attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of the visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; or (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.12.e or 4.7.12.f, as applicable. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

INSERT "B"

e. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, were required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

INSERT "C"

based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each type of snubber, and the previous inspection interval. This criteria follows the guidance provided in Generic Letter 90-09.

INSERT "D"

Snubbers are classified and grouped by design and manufacturer but not by size. For example, mechanical snubbers utilizing the same design features of the 2-kip, 10-kip and 100-kip capacity manufactured by Company "A" are the same type. The same design mechanical snubbers manufactured by Company "B" for the purposes of this Technical Specification would be of a different type, as would hydraulic snubbers from either manufacturer.

ATTACHMENT B

Beaver Valley Power Station, Unit Nos. 1 and 2
Proposed Technical Specification Change No. 201/68
REVISION OF SPECIFICATION 3.7.12

A. DESCRIPTION OF AMENDMENT REQUEST

The proposed amendment would revise Specification 3.7.12 for both units to replace the existing snubber visual inspection schedules and surveillance requirements with the changes provided by NRC Generic Letter 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions". The functional test acceptance criteria in the Beaver Valley Unit 2 (BV-2) specification will also be changed to be identical to the Beaver Valley Unit 1 (BV-1) specification. The page number for BV-2 Specification 3.7.13.1 will be revised to reflect a new page number. BV-1 and BV-2 Bases 3/4.7.12 will be revised to reference and reflect the guidance provided by Generic Letter 90-09. BV-2 Bases 3/4.7.12 will also be revised to add a description of "type of snubber".

The proposed amendment will be implemented in the following manner. The first visual inspection for each type of snubber will be based on the previous inspection interval and the results of that inspection for each type of snubber. This guidance is being provided since the proposed specification groups snubber inspections based on type of snubber, which is not defined in the existing BV-2 specification.

B. BACKGROUND

Technical Specifications (TS) impose surveillance requirements for visual inspection and functional testing of all safety-related snubbers. A visual inspection is the observation of the condition of installed snubbers to identify those that are damaged, degraded, or inoperable as caused by physical means, leakage, corrosion, or environmental exposure. To verify that a snubber can operate within specific performance limits, functional testing is performed that typically involves removing the snubber and testing it on a specially-designed test stand. Functional testing provides a 95 percent confidence level that 90 percent to 100 percent of the snubbers operate within the specified acceptance limits. The performance of visual examinations is a separate process that complements the functional testing program and provides additional confidence in snubber operability.

The snubber visual examination schedule in the existing TS is based on the permissible number of inoperable snubbers found during the visual examination. Because the existing snubber visual examination schedule is only based on the absolute number of inoperable snubbers found during the visual examinations irrespective of the total population of snubbers, plants with a large snubber population find the visual inspection schedule excessively restrictive. The purpose of the alternative examination schedule provided by Generic Letter 90-09 is to allow

visual examinations and corrective actions to be performed during plant outages without reducing the confidence level provided by the existing examination schedule.

C. JUSTIFICATION

The following is an excerpt from Generic Letter 90-09:

> The TS specifies a schedule for snubber visual inspections that is based on the number of inoperable snubbers found during the previous visual inspection. The schedules for visual inspections and for the functional testing assume that refueling intervals will not exceed 18 months. Because the current schedule for snubber visual inspections is based only on the number of inoperable snubbers found during the previous visual inspection, irrespective of the size of the snubber population, licensees having a large number of snubbers find that the visual inspection schedule is excessively restrictive. Some licensees have spent a significant amount of resources and have subjected plant personnel to unnecessary radiological exposure to comply with the visual examination requirements.
>
> To alleviate this situation, the staff has developed an alternate schedule for visual inspections that maintains the same confidence level as the existing schedule and generally will allow the licensee to perform visual inspections and corrective actions during plant outages. Because this line-item TS improvement will reduce future occupational radiation exposure and is highly cost effective, the alternative inspection schedule is consistent with the Commission's policy statement on TS improvements.

Beaver Valley has reviewed Generic letter 90-09 and agrees with the NRC Staff's conclusions that the alternate schedule for snubber visual inspections will reduce future occupational radiation exposure and is highly cost effective while maintaining the same confidence level as the existing schedule.

The functional test acceptance criteria in BV-2 Specification 3.7.12 is also being revised to be identical to the BV-1 specification. This change provides more specific acceptance criteria for hydraulic and mechanical snubbers and provides the added benefit of allowing the snubber functional test acceptance criteria to be totally consistent between the units.

D. SAFETY ANALYSIS

Specification 3.7.12 for both units has been revised to replace the existing snubber visual inspection schedules and surveillance requirements with the changes provided by NRC Generic Letter 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions". BV-1 and BV-2 Bases 3/4.7.12 has also been revised to reference and reflect the guidance

provided by Generic Letter 90-09. A section has been added to BV-2 Bases 3/4.7.12 to describe "type of snubber", which is identical to Standard Technical Specification wording. All of the above changes are being made to be consistent with the guidance provided in Generic Letter 90-09.

Snubbers are installed in the plant to maintain the structural integrity of systems and components which mitigate the consequences of accidents previously analyzed. The proposed changes do not alter the design, function, or operation of the snubbers or the systems in which they are installed. The proposed change does not alter the configuration of the plant, plant operations or any accident analysis assumptions. No new mode of failure is being created because this change does not degrade the design, operation or maintenance of the plant.

The alternate schedule for visual inspections of snubbers in Generic Letter 90-09 was developed by the NRC Staff to generally allow snubber visual inspections and corrective actions to be performed during plant refueling outages and therefore reduce occupational radiation exposure. Since the alternate schedule maintains the same confidence level as the existing schedule and the Limiting Condition of Operation (LCO) and snubber functional test requirements remain the same, these changes do not reduce the margin of safety or affect the UFSAR.

The functional test acceptance criteria in BV-2 Specification 3.7.12 is being revised to be identical to the BV-1 specification. This change provides specific acceptance criteria for hydraulic and mechanical snubbers that more accurately reflects the testing done on the different snubber types. This change improves the functional test acceptance criteria, and does not reduce the margin of safety or affect the UFSAR.

BV-2 Specification 3.7.13.1 is being revised to reflect a new page number. This is an administrative change only and therefore, does not reduce the margin of safety or affect the UFSAR.

Based on the above considerations, the proposed changes do not reduce the level of snubber protection, therefore, the proposed changes are considered to be safe and will not reduce the safety of the plant.

E. NO SIGNIFICANT HAZARDS EVALUATION

The no significant hazard considerations involve with the proposed amendment have been evaluated, focusing on the three standards set forth in 10 CFR 50.92 (c) as quoted below:

> The Commission may make a final determination, pursuant to the procedures in paragraph 50.21(b) or paragraph 50.22 or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or

(2) Create the possibility of a new or different find of accident from any accident previously evaluated; or

(3) Involve a significant reduction in the margin of safety.

The following evaluation is provided for the no significant hazards consideration standards.

1. Does the change involve a significant increase in the probability or consequences of an accident previously evaluated?

Specification 3.7.12 for both units has been revised to replace the existing snubber visual inspection schedules and surveillance requirements with the changes provided by NRC Generic Letter 90-09 "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions". BV-1 and BV-2 Bases 3/4.7.12 has also been revised to reference and reflect the guidance provided by Generic Letter 90-09. A section has been added to BV-2 Bases 3/4.7.12 to describe "type of snubber", which is identical to Standard Technical Specification wording. All of the above changes are being made to be consistent with the guidance provided in Generic Letter 90-09.

Snubbers are installed in the plant to maintain the structural integrity of systems and components which mitigate the consequences of previously analyzed accidents. This proposed amendment does not alter the design, function, or operation of the snubbers or the systems in which they are installed. The alternate schedule for visual inspections of snubbers in Generic Letter 90-09 was developed by the NRC Staff to generally allow snubber visual inspections and corrective actions to be performed during plant refueling outages and therefore reduce occupational radiation exposure. In addition, the alternate schedule maintains the same confidence level as the existing schedule. The proposed amendment does not change the Limiting Condition of Operation (LCO) or the snubber functional test requirements. This change will not affect the UFSAR, therefore, this change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

The functional test acceptance criteria in BV-2 Specification 3.7.12 is being revised to be identical to the BV-1 specification. This change provides specific acceptance criteria for hydraulic and mechanical snubbers that more accurately reflects the testing done on the different snubber types. This change improves the functional test acceptance criteria, and does not affect the UFSAR.

Therefore, this change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

BV-2 Specification 3.7.13.1 is being revised to reflect a new page number. This is an administrative change only and therefore, this change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the change create the possibility of a new or different kind of accident from any accident previously evaluated?

The proposed change does not alter the configuration of the facility, plant operation, or the accident analysis assumptions. No new mode of failure is being created because this change does not degrade the design, operation, or maintenance of the plant. The proposed changes are consistent with the alternate inspection criteria provided in Generic Letter 90-09 and therefore, maintains the same confidence level as the existing schedule. The change to the BV-2 functional test acceptance criteria improves the criteria by more accurately reflecting the testing done on the different types of snubbers. Since the LCO and functional test requirements remain the same, these changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the change involve a significant reduction in a margin of safety?

The alternate inspection schedule proposed in the change will maintain the same confidence level as the existing schedule. The revised BV-2 functional test criteria will be identical to the BV-1 specification and provide more specific acceptance criteria for hydraulic and mechanical snubbers. The LCO and functional test requirements remain the same as the existing specification. The proposed amendment does not reduce the level of snubber protection, therefore, the proposed changes do not involve a significant reduction in the margin of safety.

F. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the considerations expressed above, it is concluded that activities associated with this license amendment request satisfies the no significant hazards consideration standards of 10 CFR 50.92(c) and, accordingly, a no significant hazards consideration finding is justified.

ATTACHMENT C-1

Beaver Valley Power Station, Unit No. 1
Proposed Technical Specification Change No. 201/68

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PLANT SYSTEMS

3/4.7.12 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.12 All snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on non safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems# required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.12.d on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.12 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Inspection Types

As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-1 and first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment (*)

These systems are defined as those portions or subsystems required to prevent releases in excess of 10 CFR 100 limits.

* NRC will include the number of the license amendment that implements this change.

SURVEILLANCE REQUIREMENTS (Continued)

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; or (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.12.e or 4.7.12.f, as applicable. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.12.d (that failures are subject to an engineering evaluation of component structural integrity) has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

d. Functional Tests

At least once per 18 months during shutdown, a representative sample (of at least 10 snubbers or at least 10% whichever is less) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.12.e or 4.7.12.f an additional 10 snubbers or at least 10% whichever is less of that type of snubber shall be functionally tested.

SURVEILLANCE REQUIREMENTS (Continued)

For each large bore snubber (snubbers greater than 1500 kips) on the reactor coolant system that does not meet the functional test acceptance criteria of Specification 4.7.12.e, an engineering evaluation is required to determine the failure mode. If the failure is determined to be generic, an additional 10% (for each failure) of that type of snubber shall be functionally tested. If the failure is determined to be non-generic, an additional 10% (for each failure) of that type of snubber will be tested during the next functional test period.

The representative sample selected for functional testing shall include the various configurations, operating environments and the range of size and capacity of snubbers. At least 25% of the snubbers in the representative sample shall include snubbers from the following three categories:

1. The first snubber away from each reactor vessel nozzle

2. Snubbers within 5 feet of heavy equipment (valve, pump, turbine, motor, etc.)

3. Snubbers within 10 feet of the discharge from a safety relief valve.

Snubbers that are especially difficult to remove or in high radiation zones during shutdown shall also be included in the representative sample.*

If a spare snubber has been installed in place of a failed snubber, the spare snubber shall be retested. Test results of this snubber may not be included for the re-sampling.

If any snubber selected for functional testing either fails to lockup or fails to move, i.e., frozen in place, the cause will be evaluated and if caused by manufacturer or design deficiency all snubbers of the same design subject to the same defect shall be functionally tested. This testing requirement shall be independent of the requirements stated above for snubbers not meeting the functional test acceptance criteria.

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* Permanent or other exemptions from functional testing for individual snubbers in these categories may be granted by the Commission only if a justifiable basis for exemption is presented and/or snubber life destructive testing was performed to qualify snubber operability for all design conditions at either the completion of their fabrication or at a subsequent date.

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

For the snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are supported by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components supported by the snubber(s) were adversely affected by the inoperability of the snubber(s) in order to ensure that the supported component remains capable of meeting the designed service.

e. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

SURVEILLANCE REQUIREMENTS (Continued)

g. Snubber Service Life Monitoring*

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and may be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.

* For purposes of establishing a baseline for the determination of service life monitoring, this program will be implemented over 3 successive refueling periods.

TABLE 4.7-1
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a type of snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation, as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population and category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

TABLE 4.7-1 (CONT'D)
SNUBBER VISUAL INSPECTION INTERVAL

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

3/4.7.12 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other similar event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to each safety-related system during an earthquake or other similar event initiating dynamic loads. Therefore, the required inspection interval varies based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each type of snubber, and the previous inspection interval. This criteria follows the guidance provided in NRC Generic Letter 90-09. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection. However, the results of such early inspections performed before the original required time interval has elapsed (nominal time less 25%) may not be used to lengthen the required inspection interval. Any inspection whose results require a shorter inspection interval will override the previous schedule.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, or verified operable by inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any-safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

ATTACHMENT C-2

Beaver Valley Power Station, Unit No. 2
Proposed Technical Specification Change No. 201/68

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LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

PLANT SYSTEMS

3/4.7.12 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.12 All snubbers shall be OPERABLE. The only snubbers excluded from this requirement are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

APPLICABILITY: MODES 1, 2, 3 and 4. (MODES 5 and 6 for snubbers located on systems* required OPERABLE in those MODES).

ACTION:

With one or more snubbers inoperable, within 72 hours replace or restore the inoperable snubber(s) to OPERABLE status and perform an engineering evaluation per Specification 4.7.12.d on the supported component or declare the supported system inoperable and follow the appropriate ACTION statement for that system.

SURVEILLANCE REQUIREMENTS

4.7.12 Each snubber shall be demonstrated OPERABLE by performance of the following augmented inservice inspection program and the requirements of Specification 4.0.5.

a. Inspection Types

As used in this specification, "type of snubber" shall mean snubbers of the same design and manufacturer, irrespective of capacity.

b. Visual Inspections

Snubbers are categorized as inaccessible or accessible during reactor operation. Each of these categories (inaccessible and accessible) may be inspected independently according to the schedule determined by Table 4.7-1. The visual inspection interval for each type of snubber shall be determined based upon the criteria provided in Table 4.7-1 and the first inspection interval determined using this criteria shall be based upon the previous inspection interval as established by the requirements in effect before amendment (**).

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* These systems are defined as those portions or subsystems required to prevent releases in excess of 10 CFR 100 limits.

** NRC will include the number of the license amendment that implements this change.

c. Visual Inspection Acceptance Criteria

Visual inspections shall verify that: (1) the snubber has no visible indications of damage or impaired OPERABILITY, (2) attachments to the foundation or supporting structure are functional, and (3) fasteners for attachment of the snubber to the component and to the snubber anchorage are functional. Snubbers which appear inoperable as a result of the visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that: (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers irrespective of type that may be generically susceptible; or (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.12.e or 4.7.12.f, as applicable. All snubbers found connected to an inoperable common hydraulic fluid reservoir shall be counted as unacceptable for determining the next inspection interval. A review and evaluation shall be performed and documented to justify continued operation with an unacceptable snubber. If continued operation cannot be justified, the snubber shall be declared inoperable and the ACTION requirements shall be met.

Snubbers which have been determined to be inoperable as a result of unexpected transients, isolated damage, or other random events, and cannot be proven operable by functional testing for the same reasons, shall not be counted in determining the next visual inspection period when the provision in 4.7.12.d (that failures are subject to an engineering evaluation of component structural integrity) has been met and equipment has been restored to an operable state via repair and/or replacement as necessary.

d. Functional Tests

At least once per 18 months during shutdown, a representative sample (of at least 10%) of the total of each type of snubber in use in the plant shall be functionally tested either in place or in a bench test. For Functional Testing type of snubber shall mean a group or combination of groups by load size and kind (i.e., hydraulic or mechanical) or any other combination of load size and kind. For each snubber that does not meet the functional test acceptance criteria of Specification 4.7.12.e or 4.7.12.f, an additional 10% shall be functionally tested.

SURVEILLANCE REQUIREMENTS (Continued)

e. Hydraulic Snubbers Functional Test Acceptance Criteria

The hydraulic snubber functional test shall verify that:

1. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

2. Snubber bleed, or release rate, where required, is within the specified range in compression or tension. For snubbers specifically required to not displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

f. Mechanical Snubbers Functional Test Acceptance Criteria

The mechanical snubber functional test shall verify that:

1. The force that initiates free movement of the snubber rod in either tension or compression is less than the specified maximum drag force.

2. Activation (restraining action) is achieved within the specified range of velocity or acceleration in both tension and compression.

3. Snubber release rate, where required, is within the specified range in compression or tension. For snubbers specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be verified.

g. Service Life Monitoring

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and may be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2. Service life will be defined to commence at plant startup subsequent to initial fuel load.

TABLE 4.7-1
SNUBBER VISUAL INSPECTION INTERVAL

Population or Category (Notes 1 and 2)	NUMBER OF UNACCEPTABLE SNUBBERS		
	Column A Extend Interval (Notes 3 and 6)	Column B Repeat Interval (Notes 4 and 6)	Column C Reduce Interval (Notes 5 and 6)
1	0	0	1
80	0	0	2
100	0	1	4
150	0	3	8
200	2	5	13
300	5	12	25
400	8	18	36
500	12	24	48
750	20	40	78
1000 or greater	29	56	109

Note 1: The next visual inspection interval for a type of snubber population or category size shall be determined based upon the previous inspection interval and the number of unacceptable snubbers found during that interval. Snubbers may be categorized, based upon their accessibility during power operation as accessible or inaccessible. These categories may be examined separately or jointly. However, the licensee must make and document that decision before any inspection and shall use that decision as the basis upon which to determine the next inspection interval for that category.

Note 2: Interpolation between population and category sizes and the number of unacceptable snubbers is permissible. Use next lower integer for the value of the limit for Columns A, B, or C if that integer includes a fractional value of unacceptable snubbers as determined by interpolation.

TABLE 4.7-1 (CONT'D)
SNUBBER VISUAL INSPECTION INTERVAL

Note 3: If the number of unacceptable snubbers is equal to or less than the number in Column A, the next inspection interval may be twice the previous interval but not greater than 48 months.

Note 4: If the number of unacceptable snubbers is equal to or less than the number in Column B but greater than the number in Column A, the next inspection interval shall be the same as the previous interval.

Note 5: If the number of unacceptable snubbers is equal to or greater than the number in Column C, the next inspection interval shall be two-thirds of the previous interval. However, if the number of unacceptable snubbers is less than the number in Column C but greater than the number in Column B, the next interval shall be reduced proportionally by interpolation, that is, the previous interval shall be reduced by a factor that is one-third of the ratio of the difference between the number of unacceptable snubbers found during the previous interval and the number in Column B to the difference in the numbers in Columns B and C.

Note 6: The provisions of Specification 4.0.2 are applicable for all inspection intervals up to and including 48 months.

PLANT SYSTEMS

3/4.7.13 STANDBY SERVICE WATER SYSTEM (SWE)

LIMITING CONDITION FOR OPERATION

3.7.13.1 At least one standby service water subsystem shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

With less than one SWE subsystem OPERABLE, restore at least one subsystem to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following thirty hours.

SURVEILLANCE REQUIREMENTS

4.7.13.1 At least one SWE subsystem shall be demonstrated OPERABLE:

a. At least once per 92 days, by verifying that each pump develops at least 109 psid differential pressure, while pumping through its test flow line.

b. At least once per 18 months during shutdown by starting a Standby Service Water System Pump, shutting down one Service Water System Pump, and verifying that the Standby Service Water Subsystem provides at least 8584 gpm cooling water to that portion of the Service Water System under test for at least 2 hours.

3/4.7.9 SEALED SOURCE CONTAMINATION

The limitations on sealed source contamination ensure that the total body or individual organ irradiation does not exceed allowable limits in the event of ingestion or inhalation of the source material. The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. Leakage of sources excluded from the requirements of this specification represent less than one maximum permissible body burden for total body irradiation if the source material is inhaled or ingested.

Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

3/4.7.10 and 3/4.7.11 RESIDUAL HEAT REMOVAL SYSTEM (RHR)

Deleted

3/4.7.12 SNUBBERS

All snubbers are required OPERABLE to ensure that the structural integrity of the reactor coolant system and all other safety-related systems is maintained during and following a seismic or other similar event initiating dynamic loads. Snubbers excluded from this inspection program are those installed on nonsafety-related systems and then only if their failure or failure of the system on which they are installed, would have no adverse effect on any safety-related system.

The visual inspection frequency is based upon maintaining a constant level of snubber protection to systems. Therefore, the required inspection interval varies based upon the number of unacceptable snubbers found during the previous inspection, the total population or category size for each type of snubber, and the previous inspection interval. This criteria follows the guidance provided in NRC Generic Letter 90-09. Inspections performed before that interval has elapsed may be used as a new reference point to determine the next inspection.

When the cause of the rejection of a snubber is clearly established and remedied for that snubber and for any other snubbers that may be generically susceptible, or verified OPERABLE by

SNUBBERS (Continued)

inservice functional testing, that snubber may be exempted from being counted as inoperable. Generically susceptible snubbers are those which are of a specific make or model and have the same design features directly related to rejection of the snubber by visual inspection, or are similarly located or exposed to the same environmental conditions such as temperature, radiation and vibration.

When a snubber is found inoperable, an engineering evaluation is performed, in addition to the determination of the snubber mode of failure, in order to determine if any safety-related component or system has been adversely affected by the inoperability of the snubber. The engineering evaluation shall determine whether or not the snubber mode of failure has imparted a significant effect or degradation on the supported component or system.

To provide assurance of snubber functional reliability, a representative sample of the installed snubbers will be functionally tested during plant shutdowns at refueling or 18 month intervals not to exceed two (2) years. Observed failures of these sample snubbers shall require functional testing of additional units.

Snubbers are classified and grouped by design and manufacturer but not by size. For example, mechanical snubbers utilizing the same design features of the 2-kip, 10-kip and 100-kip capacity manufactured by Company "A" are of the same type. The same design mechanical snubbers manufactured by Company "B" for the purposes of this Technical Specification would be of a different type, as would hydraulic snubbers from either manufacturer.

The service life of a snubber is evaluated via manufacturer input and information through consideration of the snubber service conditions and associated installation and maintenance records (newly installed snubber, seal replaced, spring replaced, in high radiation area, in high temperature area, etc...). The requirement to monitor the snubber service life is included to ensure that the snubbers periodically undergo a performance evaluation in view of their age and operating conditions. These records will provide statistical bases for future consideration of snubber service life. The requirements for the maintenance of records and the snubber service life review are not intended to affect plant operation.

3/4.7.13 STANDBY SERVICE WATER SYSTEM (SWE)

The OPERABILITY of the SWE ensures that sufficient cooling capacity is available to bring the reactor to a cold shutdown condition in the event that a barge explosion at the station's intake structure or any other extremely remote event would render all of the normal Service Water System supply pumps inoperable